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09/687,600

10/12/2000

Jason E. Tripard

MI22-1550

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11/04/2003

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EXAMINER

CHOI, STEPHEN

ART UNIT

PAPER NUMBER

3724

DATE MAILED: 11/04/2003

19

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/687,600

Applicant(s)

TRIPARD, JASON E.

Examiner

Stephen Choi

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-34,92,93 and 100-117 is/are pending in the application.
- 4a) Of the above claim(s) 23-30,113,114,116 and 117 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22,31-34,92,93,100-112 and 115 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on 11 August 2003 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 6,508,154 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Election/Restrictions

2. Newly submitted claims 113-114 and 116-117 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the newly submitted claims that are directed to an invention including release valve(s) are distinct from the invention originally claimed.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 113-114 and 116-117 have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 107-108 and 115 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 107-108, it is not clear what structure is set forth by "the panel is secured to the separator...".

In claim 115, "the blocks" and "the plurality of the blocks" lack positive antecedent basis.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 110 is rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (US 6,150,240).

Lee discloses all the recited elements of the invention including a panel and a plurality of blocks formed as one piece with the panel (10) and a cutting mechanism (35).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 22, 31-32, 100-109, and 115 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gumbert (US 5,005,814) in view of Patadia et al. (US 6,146,504) and Applicant's Admitted Prior Art (AAPA).

Gumbert discloses the invention substantially as claimed including a panel (53), a plurality of blocks (29), and pins (5, 19) extending upwardly from beneath the panel to beyond an upper surface of the panel wherein the pins do not extend through the panel (element 5 extends in a direction upwardly from beneath the panel and do not extend through the element (53)). Gumbert fails to disclose curved upper surfaces and a cutting mechanism. Patadia teaches curved upper surfaces (89). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the blocks of Gumbert with curved upper surfaces as taught by Patadia in order to prevent scratching of circuit board surfaces. Furthermore, AAPA teaches a supporting structure for a cutting operation using a cutting mechanism. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a supporting structure of Gumbert for a cutting operation using a cutting mechanism as taught by AAPA as an alternative means for supporting circuit boards. With respect to claim 101, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use aluminum to make the panel, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. With respect to claim 102, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form blocks as one piece with the panel, since

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it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. Such a modification could perform to support circuit boards with set pattern. With respect to claim 105-106, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select an optimum height of blocks, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. With respect to claims 107-108, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use screws or rivets for attaching the panel since the use of screws or rivets is old and well known in the art for the purpose of attaching or securing elements together.

9. Claims 33-34 and 92-93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gumbert (US 5,005,814) in view of Patadia et al. (US 6,146,504) and Applicant's Admitted Prior Art (AAPA) as applied to claim 22 above, and further in view of Mitchell (US 5,932,065).

The modified device of Gumbert discloses the invention substantially as claimed except for a pneumatically powered actuator. Mitchell discloses an actuator to vertically displace a holding structure. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the actuator taught by Mitchell on the modified device of Gumbert in order to facilitate positioning of a product holding structure with respect to an operating tool. Furthermore, it would have been obvious to one having ordinary skill in the art to employ a pneumatically powered actuator since

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the use of a pneumatically powered actuator is old and well known in the art for the purpose of providing clean and efficient operation.

10. Claim 111 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 6,150,240).

Lee discloses the invention substantially as claimed except for aluminum.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use aluminum to make the panel, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

11. Claim 112 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 6,150,240) in view of Mitchell (US 5,932,065).

Lee discloses the invention substantially as claimed except for an actuator.

Mitchell discloses an actuator to vertically displace a holding structure. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the actuator taught by Mitchell on the device of Lee in order to facilitate positioning of a product holding structure with respect to an operating tool.

Response to Arguments

12. Applicant's arguments filed 11 August 2003 have been fully considered but they are not persuasive.

Regarding the rejections under 35 USC 1112, 2nd paragraph on claims 107-108, applicant contends that claims are not indefinite because claims 107-108 recite further details as to how a panel is affixed to the separator.

The examiner respectfully disagrees. Claim 22 recites the panel as part of separator, however, claims 107-108 recite that the panel is secured to the separator by means of screws or rivets. Thus, it is unclear as to what structure is included in the separator. Claim 22 indicates the panel is part of the separator where claims 107-108 indicate the panel is an additional element that is being secured to the separator by screws or rivets.

Regarding the rejection under 35 USC 102 on claim 110, applicant contends that Lee does not disclose all the recited elements of the invention since Lee fails to teach the limitation "leaving the integrated circuit chip components extending between the blocks and panel"

The examiner respectfully disagrees. The limitation clearly describes the manner in which the separator is intended to be employed and the structure of Lee is capable of leaving the integrated circuit chip components extending between the blocks and panel since Lee satisfies all the claimed structural limitations. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Applicant's statement on page 14 stating, "Providing semiconductor devices in slots 13 teaches away from Lee and further destroys Lee's intended functionality" is unclear as to what applicant is attempting to argue.

Regarding the rejections under 35 USC 103 on claims 22, 31-32, and 100-109, applicant contends that Gumbert fails to teach an integrated circuit package separator

since Gumbert discloses a product carrier being used for a mounting operation of components. Furthermore, Gumbert fails to teach a plurality of blocks over the panel configured to support the board while leaving the integrated circuit chip components extending between the block upper surfaces and the panel. Applicant further contends that there is no desirability exists to modify pins of Gumbert to have curved upper surfaces and such a modification destroys the intent, purpose or function of the invention. In addition, applicant contends that Gumbert does not show pins extend from beneath the panel since Gumbert shows pins provided from above the panel-not underneath.

The rejections are based on combinations of reference and the device of Gumbert can be employed as a holding structure for cutting operation. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. Furthermore, the device of Gumbert can be configured to have the plurality of blocks over the panel such that the board is supported while leaving the integrated circuit chip components extending between the block upper surfaces and the panel. Moreover, the modification of Gumbert with curved surfaces will not destroy the function of the invention since the board is already in a fixed position by locating pegs. Rather, one of ordinary skill in the art would have been motivated to make such a modification since the curved surfaces would prevent scratching of board surfaces. In addition, claim 31 calls for "pins extending upwardly from beneath the panel". Although the examiner agrees that Gumbert does not show a portion of pins being underneath the panel, the limitation merely requires pins to be

extending in an upward direction from beneath the panel as previously stated above and does not require a portion of pins to be underneath the panel.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Choi whose telephone number is 703-306-4523. The examiner can normally be reached on Monday thru Friday between 9am and 5pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 703-308-1082.

In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9306. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-308-1148.

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SC
October 31, 2003



STEPHEN CHO
PRIMARY EXAMINER